

**Amendments to the Abstract**

Please ADD the following abstract to the application. The Abstract is provided on a separate sheet that accompanies this Preliminary Amendment.

**--ABSTRACT**

Cylinder head apparatus for an internal combustion engine having a cylinder and piston including a rotating shaft having a recess causing periodic communication between the cylinder and intake and exhaust passages. In other embodiments, two shafts are used, and hollow shafts with apertures are used.--